# HUTCHINSON BIN UNLOADING SYSTEMS

#### **Sweep Options**

Std. Klean Sweep Commercial Sweep Std. Power Sweep HD Power Sweep Commercial Power Sweep NexGen Sweep

Unloading Options Standard Auger Unload Commercial Auger Unload U-Trough

Unloading Options Mass-Ter Mover Mass-Ter Flow Grain Pump Tube Type Power Heads Drives Horizontal Angled



### STANDARD KLEAN SWEEP



STANDARD KLEAN SWEEP SPECIFICATIONS									
SWEEP   BIN   FLIGHT   FLIGHT   FLIGHT									
MODEL	DIAMETERS	DIAMETER	STRIP	SPEED	CAPACITY				
6"	15' <i>(4.6 m)</i> to 36' <i>(11.0 m)</i>	4" (10.2 cm)	1/8" <i>(3.0 mm)</i>	625 RPM	650 BPH (18 TPH)				
8"	15' <i>(4.6 m)</i> to 48' <i>(14.6 m)</i>	5" <i>(12.7 cm)</i>	1/8" <i>(3.0 mm)</i>	525 RPM	1,175 BPH <i>(32 TPH)</i>				
10"	24' (7.3 m) to 48' (14.6 m)	7" (17.8 cm)	3/16" ( <i>4.6 mm</i> )	438 RPM	2,200 BPH <i>(59 TPH)</i>				

This simple, easy to handle sweep provides an inexpensive tool for emptying bins up to 48' (14.6 m) diameter. The unique back-up shield and torque tube combination adjusts for close floor clearance to maximize bin cleanup. After one or two revolutions of the sweep, the job is done.

#### Standard Klean Sweep features:

- Rubber disk end wheel assembly drives sweep around the bin
- Intermediate flight bearings on 30' (9.1 m) diameter bins and larger
- Drive includes driven sheave, belt and simplistic motor mount
- 10" units have intermediate bronze bearings that support the flight every 10' (3.1 m) or less

### COMMERCIAL KLEAN SWEEP





### COMMERCIAL KLEAN SWEEP SPECIFICATIONS

SWEEP	BIN	FLIGHT	FLIGHT	FLIGHT	
MODEL	DIAMETERS	DIAMETER	STRIP	SPEED	CAPACITY
810	24' (7.3 m) to 92' (28.0 m)	7" (17.7 cm)	3/16" <i>(4.6 mm)</i>	300-400 RPM	1,600-2,050 BPH <i>(43 -55 TPH)</i>
1012	24' (7.3 m) to 120' (36.6 m)	9" <i>(22.9 cm)</i>	1/4" <i>(6.4 mm)</i>	250-290 RPM	3,200-3,700 BPH (86-100 TPH)
1214	36' (11.0 m) to 120' (36.6 m)	12" <i>(30.5 cm)</i>	1/4" <i>(6.4 mm)</i>	150-230 RPM	3,950-6,100 BPH (106-165 TPH)

Hutchinson's Commercial Klean Sweep is an outstanding performer for a minimal investment. These sweeps provide an economical solution for bin diameters up to 120' (*36.6 m*).

#### **Commercial Klean Sweep features:**

- End wheel drive is either a 4 to 1 reduction drive for 810 models or 9 to 1 reduction drive for 1012 models.
- Sweep tractor drive is standard for 1214 models (optional on 1012 models).
- Intermediate flight bearings every 10' (3.1 m) or less running length of flight.
- Sweep carrier provides extra support for flight in 48' (14.6 m) or larger bins on 810 and 1012 models. The 1214 models provide a sweep carrier in 68' (20.7 m) or larger bins.
- Models 810 come standard with 2 to 1 oil bath reducer drive, models 1012 have a 3 to 1 oil bath reducer drive and 1214 models have 3 to 1 oil bath reducer drives up to 78' (23.8 m) bins or a 4 to 1 gear reducer drive for 80' (24.4 m) to 120' (36.6 m) bins.

### STANDARD & HEAVY DUTY POWER SWEEP



STANDARD & HEAVY DUTY POWER SWEEP SPECIFICATIONS									
AUGER UNLOAD MODEL 6" Standard	BIN DIAMETERS 15' (4.6 m) to 48' (14.6 m)	SWEEP FLIGHT DIAMETER 5" (12.7 cm)	UNLOAD FLIGHT DIAMETER 5" (12.7 cm)	SWEEP FLIGHT STRIP 1/8" (3.0 mm)	UNLOAD FLIGHT STRIP	FLIGHT SPEED 450-525 RPM	<b>CAPACITY</b>		
6" Standard	15 (4.6 m) to 48 (14.6 m)	5 (12.7 cm)	5 (12.7 cm)	3/16" (4.6 mm)	1/8" (3.0 mm)	325-440 RPM	1,000-1,200 BPH (27-32 TPH)		
8" Standard	15' (4.6 m) to 48' (14.6 m)	7" (17.8 cm)	7" (17.8 cm)	3/16" (4.6 mm)	3/16" (4.6 mm)		1,700-2,200 BPH (46-59 TPH)		
10" Standard	24' (7.3 m) to 48' (14.6 m)	7" (17.8 cm)	9" (22.9 cm)	3/16" (4.6 mm)	3/16" (4.6 mm)		3,575-4,500 BPH (96-122 TPH)		
8" Heavy Duty	30' (9.1 m) to 72' (22.0 m)	7" (17.8 cm)	7" (17.8 cm)	3/16" (4.6 mm)	1/4" (6.4 mm)	325-440 RPM	1,700-2,200 BPH <i>(46-59 TPH)</i>		
10" Heavy Duty	30' (9.1 m) to 72' (22.0 m)	8 1/8" (20.6 cm)	9" (22.9 cm)	1/4" (6.4 mm)	1/4" (6.4 mm)	325-440 RPM	3,575-4,500 BPH <i>(96-122 TPH)</i>		

The Power Sweep provides the convenience of powering both the unloading flight and the sweep with one motor on the outside of the grain bin. The sweep can remain inside the bin during the grain bin filling process, allowing it to be in position for use at a moments' notice. We have an excellent choice of power head options to fit your application that will complete your unloading system.

#### Standard and Heavy Duty Power Sweep features:

- Center power well and roller supported gate with gear boxes
- Bin sweep with 4 to 1 reduction drive sweep wheel
- Under bin auger housing and flight
- Appropriate number of intermediate wells
- Control pipe kit with unique control lever for maximum pull

### COMMERCIAL POWER SWEEP



	COMMERCIAL POWER SWEEP SPECIFICATIONS							
SWEEP	BIN	FLIGHT	FLIGHT	FLIGHT				
MODEL	DIAMETERS	DIAMETER	STRIP	SPEED	CAPACITY			
600	36' (11.0 m) to 60' (18.3 m)	7" (17.7 cm)	3/16" <i>(4.6 mm)</i>	300-400 RPM	1,600-2,050 BPH <i>(43-55 TPH)</i>			
800	36' (11.0 m) to 60' (18.3 m)	9" <i>(22.9 cm)</i>	1/4" <i>(6.4 mm)</i>	220-250 RPM	2,800-3,200 BPH (76-86 TPH)			
1000	36' (11.0 m) to 75' (22.9 m)	9" <i>(22.9 cm)</i>	1/4" <i>(6.4 mm)</i>	300-325 RPM	3,850-4,150 BPH (104-112 TPH)			
1200	36' (11.0 m) to 75' (22.9 m)	9" <i>(22.9 cm)</i>	1/4" <i>(6.4 mm)</i>	375-395 RPM	4,800-5,050 BPH (130-136 TPH)			

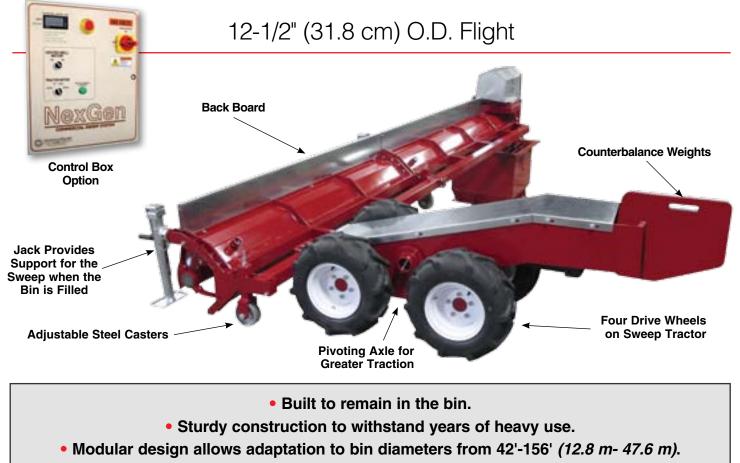
The Commercial Power Sweep is a unique concept adapted to commercial type storage. This sweep will accommodate a variety of unloading units including auger unloaders, u-trough and chain conveyors. Like our other power sweep, it offers the convenience of having the drive on the outside of the bin, but with the added feature of using a separate drive for the sweep. We have the drive necessary to complement the unloading system that you choose.

#### Standard and Heavy Duty Power Sweep features:

- Two individual gearboxes allow compact design for center well
- End wheel drive is either a 4 to 1 reduction drive for 600 models or 9 to 1 reduction drive for larger models
- Intermediate wells provided with removable top flanges for easier installation
- Sweep carrier provide extra support for flight and shield for sweeps in 48' (14.6 m) or larger bins
- Control pipe kits with rack and pinion style openers

### NEXGEN COMMERCIAL SWEEP

### A Key Component to Zero Bin Entry Operation



• Control Box provides both total automation and manual operation.

	NEXG	EN COMME	ERCIAL SWEEP	SPECIFICATIO	NS
Capacities	Flighting	Drive	Tractor	Center Well Option	Control Box Option
6,500 – 8,500 BPH (175-230 TPH)	12.5" <i>(31.8 cm)</i> O.D. x ¼" <i>(6 mm)</i> thick	4:1 Gear Reducer drive up to 40 HP <i>(30 kW)</i>	Unique 4 wheel drive tractor design, one tractor on bin diameters up to 92' (28 m) and two tractors on bin diameters 105' to 156' (32.0 m – 47.6 m)	30" x 30" ( <i>76 cm x 76 cm</i> ) opening for both Electric Slip Ring Well or Non- Electrical Well	Control Box allows automatic control for starting and stopping the tractor determined by the amount of amps being drawn by the motor operating the sweep flight. Also features a tractor reverse option as well as a main "on-off" switch

### STANDARD & COMMERCIAL AUGER UNLOADING



100 million	AUGER UNLOADING SPECIFICATIONS								
AUGER UNLOAD MODEL 6" Standard 8" Standard 10" Standard	BIN DIAMETERS 14' (4.3 m) to 37' (11.3 m) 14' (4.3 m) to 48' (14.6 m) 23' (7.0 m) to 48' (14.6 m)	UNLOAD TUBE 6" (15.2 cm) O.D. x 16 Ga. (1.52 mm) Galv. 8" (20.3 cm) O.D. x 14 Ga. (1.9 mm) Galv. 10" (25.4 cm) O.D. x 14 Ga. (1.9 mm) Galv.	UNLOAD FLIGHT 5" (12.7 cm) O.D. × 1/8" (3.0 mm) thick 7" (17.8 cm) O.D. × 3/16" (4.6 mm) thick 9" (22.9 cm) O.D. × 3/16" (4.6 mm) thick	FLIGHT SPEED 525 RPM 440 RPM 440 RPM	<b>CAPACITY</b> 1,500 BPH ( <i>41 TPH</i> ) 2,500 BPH ( <i>68 TPH</i> ) 4,000 BPH ( <i>108 TPH</i> )				
8" Commercial 10" Commercial 12" Commercial 14" Commercial	24' (7.3 m) to 78' (23.8 m) 24' (7.3 m) to 92' (28.0 m) 24' (7.3 m) to 120' (36.6 m) 36' (11.0 m) to 92' (28.0 m)	8" (20.3 cm) O.D. x 14 Ga. (1.9 mm) Galv. 10" (25.4 cm) O.D. x 12 Ga. (2.7 mm) Galv. 12" (30.5 cm) O.D. x 12 Ga. (2.7 mm) Galv. 14" (35.6 cm) O.D. x 12 Ga. (2.7 mm) Painted	7" ( <i>17.8 cm</i> ) O.D. x 3/16" ( <i>4.6 mm</i> ) thick 9" ( <i>22.9 cm</i> ) O.D. x 3/16" ( <i>4.6 mm</i> ) thick 11" ( <i>27.9 cm</i> ) O.D. x 3/16" ( <i>4.6 mm</i> ) thick 12 1/2" ( <i>31.8 cm</i> ) O.D. x 1/4" ( <i>6.4 mm</i> ) thick	440 RPM 440 RPM 350 RPM 300 RPM	2,500 BPH <i>(68 TPH)</i> 4,000 BPH <i>(108 TPH)</i> 6,300 BPH <i>(170 TPH)</i> 9,400 BPH <i>(254 TPH)</i>				

Using auger unloading housing and flight is an economical approach to storage unloading that has a proven history for reliability. These unloaders can be purchased as a whole unit that includes not only the unloading tube and flight, but also the center well, intermediate wells and control pipe kits. Then with the selection of your choice of power head, you will have a complete unload system. Also, our systems can be ordered as components that will allow you to completely customize what you need for any application.

#### Auger Unloading features:

- Choice of unloading tube and flights to meet your capacity and size requirements
- Various center bin well and intermediate bin well options available
- Control pipe kits and either control lever or rack & pinion openers to select from
- Bin flanges, quick connect flange clamps and an assortment of other possible components to complete your unload system

### U-TROUGH UNLOADING



U-TROUGH UNLOADING SPECIFICATIONS							
U-Trough	U-Trough	U-Trough	Flight				
Model	Housing	Flight	Speed	Capacity			
9"	10" (25.4 cm) Wide x 14 Ga. (1.9 mm) Painted	9" (22.9 cm) O.D. x 3/16" (4.6 mm) or 3/8" (9.5 mm)	80-325 RPM	500-4,000 BPH (14-108 TPH)			
12"	13" <i>(33.0 cm)</i> Wide x 12 Ga. <i>(2.7 mm)</i> Painted	12" (30.5 cm) O.D. x 1/4" (6.4 mm) or 3/8" (9.5 mm)	80-260 RPM	1,250-8,300 BPH (34-224 TPH)			

The U-Trough auger conveyor is of a custom design type and a good solution for horizontal applications where extended hours of use are needed. The U-Trough auger has flighting that is supported every 10' (*3 m*) by hanger bearings inside of a "U" shaped housing and in combination with reduced speed permits minimal wear. These units are put together with a combination of components as opposed to a packaged product to meet your specific demands.

#### **U-Trough Unloading features:**

- Hanger bearing choices for the flight is either wood or nylon
- Oil bath chain reducer, 4 to 1 gear reducer drive or Dodge reducer drives are available
- A galvanized cover for top of conveyor is clamped into place, giving easy access to the auger flighting
- Roller gate wells {5 <sup>3</sup>/<sub>4</sub>" (*14.6 cm*) tall} along with a three control pipe system for the well gates is used with a rack and pinion style of control to operate the gates

### ENMASSE CONVEYORS

#### Move up to the world of Hutchinson en masse drag conveyor Bin Unloading featuring:

- The extremely long life of 81X or 81XHH roller chain
- The quiet operation and long life of UHMW plastic paddles
- The unquestionable quality of Dodge drives

16'

16" (40.6 cm) O.D. x 7 Ga. (4.5 mm) Galv.

- High capacity at lower operating speeds result in long life
- Roller gated wells and rack and pinion controls for gate wells are used
- MASS ΜΟν For horizontal, inclined and even vertical requirements the Mass-ter mover unload is a versatile system that will maintain its capacity. SPECIFICATIONS MASS-TER MASS-TER MOVER CONVEYOR CONVEYOR CHAIN MOVER CHAIN MODEL HOUSING (GALV.) PADDLE SPEED CAPACITY 6" x 9" (15.2 x 22.9 cm) - 10 Ga. (3.4 mm) Bottom 3/8" (9.5 mm) Thick UHMW 81X Chain 150-325 FPM (46-99 MPM) 50 2,500-5,000 BPH (68-135 TPH) 7" x 13" (17.8 x 33 cm) - 10 Ga. (3.4 mm) Bottom 85 81XHH Chain 1/2" (12.7 mm) Thick UHMW 150-400 FPM (46-122 MPM) 4,100-10,000 BPH (111-270 TPH) 150 10" x 17" (25.4 x 43.2 cm) - 10 Ga. (3.4 mm) Bottom Double 5/8" (15.9 mm) Thick UHMW 150-350 FPM (46-107 MPM) 7,500-17,500 BPH (203-473 TPH) 81XHH Chain MASS-TER FLO NLOAD For horizontal use only, this single trunk design with its low profile paddle is the most economical choice for storage unloading. SPECIFICATIONS MASS-TER CONVEYOR MASS-TER FLOW CONVEYOR CHAIN FLOW MODEL HOUSING (GALV.) CHAIN PADDLE SPEED CAPACITY 9" (22.9 cm) - 10 Ga (3.4 mm) Bottom 2,500-10,000 BPH (68-270 TPH) 9" 81X Chain 3/8" (9.5 mm) Thick UHMW 80-320 FPM (24-98 MPM) 13" 13" (33.0 cm) - 10 Ga. (3.4 mm) Bottom 81X Chain 3/8" (9.5 mm) Thick UHMW 130-260 FPM (40-79 MPM) 7,500-15,000 BPH (203-405 TPH) GRAIN PU The innovative Hutchinson Grain Pump that utilizes a round tube and paddle is capable of doing it all in the simplest of systems. This is not just an unloading conveyor, but can fill your storage or transfer grain from one bin to another. SPECIFICATIONS GRAIN PUMP CONVEYOR CONVEYOR CHAIN MODEL CHAIN PADDLE TUBING SPEED CAPACITY 6" 6" (15.2 cm) O.D. x 12 Ga. (2.7 mm) Galv. 81X 3/8" (9.5 mm) Thick UHMW 325 FPM (99 MPM) 2,000 BPH (54 TPH) 8" 8" (20.3 cm) O.D. x 12 Ga. (2.7 mm) Galv. 81XHH 3/8" (9.5 mm) Thick UHMW 325 FPM (99 MPM) 4,000 BPH (108 TPH) 10" 10" (25.4 cm) O.D. x 12 Ga. (2.7 mm) Galv. 81XHH 1/2" (12.7 mm) Thick UHMW 325 FPM (99 MPM) 6,000 BPH (162 TPH) 12" 12" (30.5 cm) O.D. x 10 Ga. (3.4 mm) Galv. 81XHH 1/2" (12.7 mm) Thick UHMW 400 FPM (122 MPM) 10,000 BPH (270 TPH)

5/8" (15.9 mm) Thick UHMW

WH124

400 FPM (122 MPM)

18,000 BPH (486 TPH)

### AUGER UNLOADING - POWER HEADS

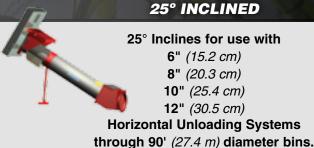
#### HORIZONTAL

Horizontals available in 6" (15.2 cm) 8" (20.3 cm) 10" (25.4 cm) 12" (30.5 cm)

Single and double direct belt drives on units with Standard Components System. Commercial Grade furnished with 2, 3 & 4 belt drives, many with oil bath reducers.

ALSO AVAILABLE: Low-Boy and Variable Angle Auger Connectors (not illustrated). Special length or height power heads available with special drives -Ask for details.

IMPORTANT: Keep all shields and safety devices in place at all times. Observe all safety signs and warnings shown on the product and in the operator's manual.



Five foot (1.5 m) length provides about 2' (0.6 m) extra discharge height. Includes adjustable support stand to which you can attach optional wheel kit for portability. Two & three belt "B" section drives. Internal bearing in elbow. Units are offered as 6" (15.2 cm) (horizontal) to 6" (15.2 cm) (incline), 6" (15.2 cm) to 8" (20.3 cm), 8" (20.3 cm) to 8" (20.3 cm), 8" (20.3 cm) to 10" (25.4 cm), 10" (25.4 cm) to 12" (30.5 cm) and 12" (30.5 cm) to 14" (35.6 cm). We recommend the step-up sizes at all times for maximum capacity and smooth grain flow.

#### STANDARD VERTICAL

6" (15.2 cm), 8" (20.3 cm), and 10" (25.4 cm) 16' 6" (5.0 m) Tall Vertical for use with Standard Components System on bins through 48' (14.6 m) diameter. Discharge directly into truck, trailer or mill. One drive with heavy right angle oil bath gearbox runs both the vertical and under-bin auger. Electric powered, includes 45° discharge with 3' (0.9 m) long solid spout, base support and bin wall mounting bracket. Kit available to attach 8" (20.3 cm) vertical to 6" (15.2 cm) or 10" (25.4 cm) to 8" (20.3 cm) unload tube.

## COMMERCIAL DOUBLE

8" (20.3 cm), 10" (25.4 cm) and 12" (30.5 cm) Commercial Grade
Verticals stand 16' 6" (5.0 m) tall. Separate direct belt or 3:1 oil bath reducer drives on horizontal and vertical sections speedmatch capacities. This dual drive design will handle 24' (7.3 m) thru 120' (36.6 m) diameter bins. Includes 3' (0.9 m), 45° discharge, base support and wall bracket. Kit available to attach 10" (25.4 cm) unit to

> 8" (20.3 cm) or 12" (30.5 cm) to 10" (25.4 cm) unload tube.



### MASS-TER MOVER POWER HEAD



#### **Mass-Ter Mover Power Head**

The Mass-ter Mover unloading power heads can be used in conjunction with 30° or 45° corners (15° and 90° available on model 50 units) that will provide the discharge height needed. A selection of reducer drives with various chain speeds and horsepower are available to match the capacity required.

#### MASS-TER FLOW POWER HEAD



#### **Mass-Ter Flow Power Head**

The Mass-ter Flow unloading power heads can be ordered with a drive that will complement the length of conveyor necessary to unload your storage structure. These high quality drives provides smooth, quiet power that will give exception life to the conveyor.

### THE HUTCHINSON PRODUCT LINE





#### A Division of GLOBAL Industries, Inc.

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